

### REMARKS

The Applicant does not believe that examination of the foregoing amendment will result in the introduction of new matter into the present application for invention. Therefore, the Applicant, respectfully, requests that the above amendment be entered and that the claims to the present application, kindly, be reconsidered.

The Office Action dated September 20, 2004 has been received and considered by the Applicants. Claims 1-20 are pending in the present application for invention. Claims 1-4, 18 and 19 stand rejected and Claims 5-17 and 20 are objected to by the September 20, 2004 Office Action. The foregoing amendment adds new independent Claims 21-23.

The drawings are objected to because there are no detailed description of elements 28 and 35 of Figure 1. The Applicant respectfully points out that the detailed description does in fact include elements 28 and 35 of Figure 1. The Applicant draws the Examiner's attention to the description of combination unit 28 on page 4, of the specification line 12, and the description of detector unit page 5, line 15. Therefore, a description of elements 28 and 35 of Figure 1 is contained within the specification.

The Abstract of the disclosure of the specification has been objected to because of informalities. The foregoing amendment to the specification has corrected this oversight.

The Examiner objects to the specification for not including specification headings. The Examiner refers to 37CFR 1.77(b), and states that the Applicants is required to use the specification headings suggested therein. The Applicant, respectfully, disagrees. The Applicant, respectfully, points out that 37 CFR 1.77(b) provides a suggestion for specification headings; however, there is no requirement that the specification contain headings. It is only required that the information appear in the order stated by 37 CFR 1.77(b). Therefore, the Applicant, respectfully, declines to add the specification headings as requested by the Examiner because they are not required.

The Examiner objects to the specification due to the typographical errors on pages 6 and 7. The foregoing amendment to the specification has corrected this oversight.

The Office Action objects to Claims 5-17 and 20 for being multiple dependent claims that depend from multiple dependent claims. The foregoing amendment to the claims has corrected this oversight. The Applicant, respectfully, asserts that the subject matter of Claims 5-17 and 20 is not disclosed or suggested by the cited prior art references.

The Office Action rejects Claim 19 under the provisions of 35 U.S.C. §101. The Examiner's position is that Claim 19 does not recite statutory subject matter. The Examiner states that Claim 19 is directed to the structure for the transmission signal per se. The Applicants, respectfully, point out that subject matter directed to the structure for the transmission signal is not per se non-statutory. In an effort to move this case towards allowance, Claim 19 has been amended to recite that electronic circuitry receiving the transmission signal is caused to generate a sample rate converted audio signal. The Applicant respectfully submits that Claim 19 has amended clearly recites a useful, concrete and tangible result. The Applicant asserts that Claim 19 defines subject matter for an information carrier that causes electronic circuitry to generate a sample rate converted audio signal. The sample rate converted audio signal is a tangible result different from the information contained in the transmission signal. Accordingly, Claim 19 after amendment is clearly statutory under 35 U.S.C. §101.

The Office Action rejects Claims 1-4, 18, and 19 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 6,272,182. The Examiner states that although the conflicting claims are not identical, they are not patentably distinct from each other because Claim 1 of U.S. Patent No. 6,272,182 covers and encompasses the limitations of the respective Claims 1-4, 18, and 19 of the instant application.

The Applicant, respectfully, points out that Claim 1 of U.S. Patent No. 6,272,182 does not fully cover receiving a digital audio signal and for receiving a first information word having a relationship with the specific wordlength and a second information word having a relationship with the specific sampling rate. Furthermore, U.S. Patent No. 6,272,182 does not fully cover formatting means for combining the digital audio signal and the first and second information words. Moreover, Claim 1 of U.S. Patent No. 6,272,182 does not fully cover a frequency value taken from a group of at least two frequency values.

The Applicant, respectfully, requests that the rejection of Claims 1-4, 18, and 19 under the judicially created doctrine of obviousness-type double patenting be rescinded for the following reason. U.S. Patent No. 6,272,182 is the parent case of the present invention and as such the claims of U.S. Patent No. 6,272,182 can be used as a basis for a double patenting rejection, but the claims to U.S. Patent No. 6,272,182 cannot be treated as prior art. In making the aforementioned obvious-type double patenting rejection, the Examiner states that the rejected claims to present invention are not identical but that they are not patentably distinct. The Office

Action alleges that the claims to the present invention are obvious in view of the claims to U.S. Patent No. 6,272,182, however, the Examiner has cited no prior art, whatsoever, showing that the differences between the rejected claims of the present invention and the claims to U.S. Patent No. 6,272,182 amount to an obvious modification of the claims to U.S. Patent No. 6,272,182. The Applicant, respectfully, points out that without a prior art recitation to substantiate an obvious-type double patenting rejection, there is no factual basis upon which the assertion of obviousness can be measured. Therefore, the double patenting rejection cannot stand. The foregoing analysis is clearly the rule regarding obvious type double patenting rejections and is a synopsis from a decision before the Board of Patent Appeals And Interferences, Appeal No. 1998-0425, Ex parte Frank L. Schmit, Lloyd Ewing and David T. Redmon, Application No. 08/272,527, pages 4-5.

Accordingly, the rejection of Claims 1-4, 18, and 19 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 6,272,182, is respectfully, traversed.

The Office Action rejects Claims 1-4, 18, and 19 under the provisions of 35 U.S.C. §103(a) as being unaptenatable over U.S. Patent No. 5,323,396 issued to Lokhoff (hereinafter referred to as Lokhoff) in view of U.S. Patent No. 5,627,56 issued to Ramirez (hereinafter referred to as Ramirez).

Regarding Claim 1, the Examiner states that Lokhoff teaches a digital audio transmission system having a transmitter and receiver in which the receiver has input means for receiving a digital audio signal and receiving an information word indicating a specific word length as described in column 3, lines 18-31. Initially, the Applicant would like to, respectfully, point out that rejected Claim 1 to present invention defines subject matter for input means for receiving a first information word having a "relationship" with the specific word length and does not recite subject matter related to the first information word indicating a specific word length. Additionally, the Office Action states that Lokhoff discloses the receiver, and the Applicant, respectfully, points out that rejected Claim 1 to the present invention defines subject matter for a transmitter and not receiver. Furthermore, Lokhoff on column 3, lines 18-31 discusses a first frame portion that may comprise information including sample frequency, copy protection codes, or the type of wideband signal originally applied to the transmitter. There is no disclosure, or suggestion, by Lokhoff on column 3, lines 18-31, or anywhere without reference for a

"transmitter" that receives a digital audio signal and information word indicating a specific word length as defined by rejected Claim 1. Accordingly, there are features within the rejected claims that are not found in the combination made by the Office Action.

The Examiner further states that Lokhoff on column 4, lines 17-39 teaches a second information word indicating a specific sampling rate. The Applicant would like to initially point out that rejected Claim 1 defines subject matter for input means for receiving a second information word having a "relationship" with the specific sampling rate. Rejected Claim 1 does not define subject matter for a second information word that indicates a specific sampling rate as stated by the Office Action. The Applicant would like to, respectfully, point out that Lokhoff on column 4, lines 17-39 teaches inserting allocation information in the frame before samples of the frame has advantages related to simpler decoding. Further that the serial data stream of samples can be divided having the number bits specified. There is no disclosure, or suggestion, for a second information word having a relationship with the specific sampling rate as described in column 4, lines 17-39 of Lokhoff. Accordingly, there are features within the rejected claims that are not found by the combination made by the Office Action.

The Applicant would like to draw the Examiner's attention to the recitation contained within rejected Claim 1 for the "formatting means". The formatting means as defined by rejected Claim 1 combine the digital audio signal and the first and the second information words into a serial data stream. The Office Action fails to mention any formatting means within the cited references that perform this function. Accordingly, there are features defined by the rejected claims that are not found in the combination made by the Office Action.

The Examiner further states that that it would have been obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal. The Examiner cites the Nyquist sampling theorem as taught by Ramirez in which a signal must sample into rate higher than twice signals frequency in order to avoid the problem of aliasing. The Applicant, respectfully, points out that the Nyquist sampling theorem states that an "analog" signal must be sampled at a rate that is at least twice as high as the frequency of the "analog" that is being digitized. Rejected Claim 1 to the present invention defines subject matter for sampling the "digital" audio signal and not for sampling an analog signal. The Applicant does not agree that the Nyquist sampling theorem reads on the recitation of the sampling a digital audio signal as defined by rejected Claim 1. Accordingly there are

features defined by rejected Claim 1 that are not found in the cited references. Therefore, the rejection to Claim 1, respectfully, traversed.

Regarding Claim 2, the Examiner states that the disclosure by Lokhoff in column 2, lines 9-23, reads on the recitation of rejected Claim 2 4 the sampling frequency values to include 32 kHz, 44.1 kHz and 48 kHz. The Applicants would like to, respectfully, point out that Claim 2 depends from and further narrows and defines Claim 1. Therefore, because Claim 1 is believed to be allowable for the roasted reasons, Claim 2 is also believed to be allowable.

Regarding Claim 3, the Examiner states that the disclosure by Lokhoff in column 7, lines 30-54, reads on the recitation of rejected Claim 3 for the digital audio signal being a channel encoded to obtain a serial data stream. The Applicant respectfully points out that Claim 3 includes all the limitations of the claims from which it depends. Therefore, rejected Claim 3 includes the limitations of formatting means for combining the digital audio signal and the first the second information words into serial bitstream as well as the limitations of the formatting means including channel coding means for encoded at least the digital audio signal to obtain the digital bitstream. The Applicant, respectfully, points out that Lokhoff in column 7, lines 30-54 discusses the generation of a second digital signal from a wideband digital signal comprising frames having a plurality of information packets. The number information packets depends upon (a) the bit rate, (b) the number of bits in information packet, (c) the sample frequency and (d) the number of samples of the wideband digital signal which after conversion exist within the second digital signal. Therefore, Lokhoff teaches that the number of information packets depends upon the foregoing parameters (a), (b), (c) and (d). This is not equivalent to including all the parameters (a), (b), (c) and (d) within the information packets. Moreover, there are no formatting means for combining the digital audio signal with first and second information words have a relationship to the word length and sampling rate taught by Lokhoff. Specifically, Lokhoff does not teach any formatting that places parameters (a), (b), (c) and (d) within the information packets. Accordingly, this rejection is respectfully traversed.

The Examiner making the rejection with regard to Claim 4, states that the rejection for Claim 1 reads on Claim 4 with the further disclosure by Lokhoff on column 5, lines 39-46, that the channel encoding may comprise error correction encoding at least the digital audio signal to obtain a serial data stream. The Applicant, respectfully, points out that Lokhoff on column 5, lines 39-46 discusses that the fourth frame may contain error correction information that the

receiver can possibly apply to errors produced in the second digital signal during transmission. Rejected Claim 4 defines subject matter for the formatting means comprising error correction encoding means for error correction encoding at least a digital audio signal to obtain the serial bitstream. Note that the formatting means defined by the rejected claims are within the transmitter. Furthermore, the formatting means as defined by rejected Claim 4 correct the digital audio signal to obtain the serial bitstream prior transmission. Lokhoff on column 5, lines 39-46 teaches that correction information can be sent along with the second digital signal and used by the receiver to perform error correction that occurred during transmission, after transmission; which is fundamentally different from the recitation contained within rejected Claim 4. Rejected Claim 4 defines subject matter for error correction prior transmission and then transmitting the error corrected signal. Therefore, the subject matter defined by rejected Claim 4 is not disclosed or suggested by the cited references and this rejection is, respectfully, traversed.

Regarding Claim 18, the Examiner states that Lokhoff teaches a method of transmitting a digital audio signal comprising a transmitter and a receiver to perform the steps of receiving a digital audio signal and receiving an information word indicating a specific word length as described in column 3, lines 18-31 and receiving a second information word indicating a specific sampling rate as described in column 4, lines 17-39. The Examiner further states that it would have been obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal.

The Applicant would like to, respectfully, point out that rejected Claim 18 defines subject matter transmitting a digital audio signal including receiving the digital audio signal, receiving a first information word having a "relationship" with the specific word length. Rejected Claim 18 does not attempt to define subject matter for an information word that indicates a specific word length. Lokhoff on column 3, lines 18-31 discusses a first frame portion that may comprise information including sample frequency, copy protection codes, or the type of wideband signal originally applied to the transmitter. There is no disclosure, or suggestion, by Lokhoff on column 3, lines 18-31 for a "transmitter" that receives a digital audio signal and information word having a relationship with the specific word length as defined by rejected Claim 18. Accordingly, there are features within the rejected claims that are not found in the combination made by the Office Action.

The Examiner further states that Lokhoff on column 4, lines 17-39 teaches receiving a

second information word indicating a specific sampling rate. Claim 18 defines subject matter for receiving a second information word having a "relationship" with the specific sampling rate. Claim 18 does not attempt to define subject matter for a second information word that indicates a specific sampling rate as stated by the Office action. The Applicant would like to, respectfully, point out that Lokhoff on column 4, lines 17-39 teaches inserting allocation information in the frame before samples of the frame has advantages related to simpler decoding. Further, that the serial data stream of samples can be divided having the number bits specified. There is no disclosure, or suggestion, for receiving a second information word having a relationship with the specific sampling rate disclosed or suggested in column 4, lines 17-39 of Lokhoff. Accordingly, there are features within the rejected claims that are not found by the combination made by the Office Action.

The Applicant would like to draw the Examiner's attention to the recitation contained within rejected Claim 18 related to "combining". The "combining" as defined by rejected Claim 18 combines the digital audio signal and the first and the second information words into a serial data stream. The Office Action fails to mention any combining within the cited references that disclose or suggest these limitations. Accordingly, there are features defined by the rejected claims that are not found in the combination made by the Office Action.

The Examiner further states that it would have been obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal. The Examiner cites the Nyquist sampling theorem as taught by Ramirez in which a signal must sample into rate higher than twice signals frequency in order to avoid the problem of aliasing. The Applicant, respectfully, points out that the Nyquist sampling theorem states that an "analog" signal must sampled into rate at least twice as high as the "analog" frequency in order to convert the "analog" signal into digital form. Rejected Claim 18 to the present invention defines subject matter for sampling the "digital" audio signal. Rejected Claim 18 does not attempt to define subject matter for sampling an analog signal. Therefore, the Applicant does not agree that the Nyquist sampling theorem reads on the recitation of the sampling a digital audio signal as defined by rejected Claim 18. Therefore, there are features defined by rejected Claim 18 that are not found in the cited references. Accordingly, the rejection to Claim 18 within the Office Action is, respectfully, traversed.

Regarding Claim 19, the Examiner state that Lokhoff teaches a digital audio transmission

signal having an information word indicating a specific word length as described in column 3, lines 18-31 and a second information word indicating a specific sampling rate as described in column 4, lines 17-39. The Examiner further states that it would have been obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal.

Claim 19 defines subject matter a transmission signal including a first information word having a "relationship" with the specific word length. Rejected Claim 19 does not attempt to define subject matter for an information word that indicates a specific word length. Lokhoff on column 3, lines 18-31 discusses a first frame portion that may comprise information including sample frequency, copy protection codes, or the type of wideband signal originally applied to the transmitter. There is no disclosure, or suggestion, by Lokhoff on column 3, lines 18-31 for a "transmitter" that receives a digital audio signal and information word having a relationship with the specific word length as defined by rejected Claim 18. Accordingly, there are features within the rejected claims that are not found in the combination made by the Office Action.

The Examiner further states that Lokhoff on column 4, lines 17-39 teaches a second information word indicating a specific sampling rate. Claim 19 defines subject matter for receiving a second information word having a "relationship" with the specific sampling rate. Claim 19 does not attempt to define subject matter for a second information word that indicates a specific sampling rate as stated by the Office action. The Applicant would like to, respectfully, point out that Lokhoff on column 4, lines 17-39 teaches inserting allocation information in the frame before samples of the frame has advantages related to simpler decoding. Further, that the serial data stream of samples can be divided having the number bits specified. There is no disclosure, or suggestion, for receiving a second information word having a relationship with the specific sampling rate disclosed or suggested in column 4, lines 17-39 of Lokhoff. Accordingly, there are features within the rejected claims that are not found by the combination made by the Office Action.

The Applicant would like to draw the Examiner's attention to the recitation contained within rejected Claim 19 related to "combining". The "combining" as defined by rejected Claim 19 combines the digital audio signal and the first and the second information words into a serial data stream. The Office Action fails to mention any combining within the cited references that disclose or suggest these limitations. Accordingly, there are features defined by the rejected



claims that are not found in the combination made by the Office Action.

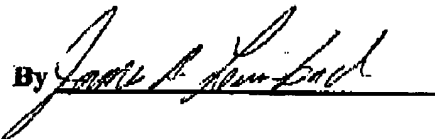
The Examiner further states that it would have been obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal. The Examiner cites the Nyquist sampling theorem as taught by Ramirez in which a signal must sample into rate higher than twice signals frequency in order to avoid the problem of aliasing. The Applicant, respectfully, points out that the Nyquist sampling theorem states that an "analog" signal must sampled into rate at least twice as high as the "analog" frequency in order to convert the "analog" signal into digital form. Rejected Claim 19 does not attempt to define subject matter for sampling an analog signal. Therefore, the Applicant does not agree that the Nyquist sampling theorem reads on the recitation of the sampling a digital audio signal as defined by rejected Claim 19. Therefore, there are features defined by rejected Claim 19 that are not found in the cited references. Accordingly, the rejection to Claim 19 within the Office Action is, respectfully, traversed.

The foregoing amendment adds new independent Claims 21-23 that are, respectively, of similar scope to claims 13, 15 and 14. The Applicant, respectfully, submits that the subject matter of new Claims 21-23 is not disclosed or suggested by the cited prior art references. Therefore, Claims 21-23 are believed to be allowable.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

Respectfully submitted,

By 

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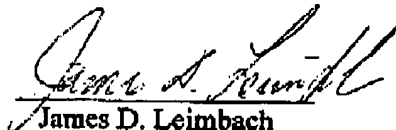
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